NEW DISCOVERIES ALL OVER THE EARTH

Why You Should HAVE A MAP OF YOUR KITCHEN

TIME, LABOR and EXPENSE That Can Be SAVED By Making This Room MORE EFFICIENT

IF you want to reduce the time, labor and expense that your kitchen involves you ought to make a map of the room with dotted lines showing the distances you have to travel in preparing, serving and clearing up after a meal. By studying such a map you will often be able to rearrange the room in a way that will enable you to do your work much more efficiently.

Improvement in the arrangement of the kitchen will result in saving the energies of millions of people and make their work less heavy and more enjoyable, according to a bulletin issued by the United States Department of Agriculture.

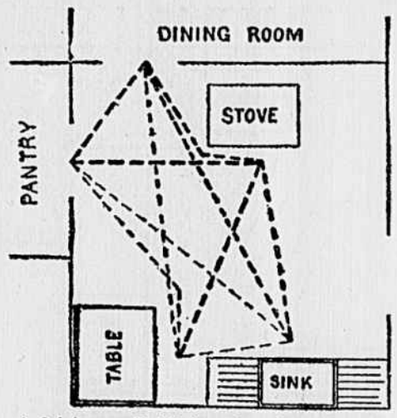
This bulletin discusses not merely the proper location of the kitchen with reference to other parts of the house, but gives details as to the best methods of treating its floors and walls, and gives well-tested floor plans for the step-saving arrangement of the sink, stove, table and other kitchen utilities. Although devoted chiefly to the farm kitchen most of the principles outlined apply equally well to any home.

A small, compact kitchen saves many steps and much useless labor in the preparation of food. This, however, is in homes where the kitchen is merely a workshop, and not used also as a room where meals are served and where the family gathers to enjoy the warmth of the stove. Even where a large kitchen is necessary, a logical arrangement of its various features with relation to each other will enable the housewife to do her work much more efficiently.

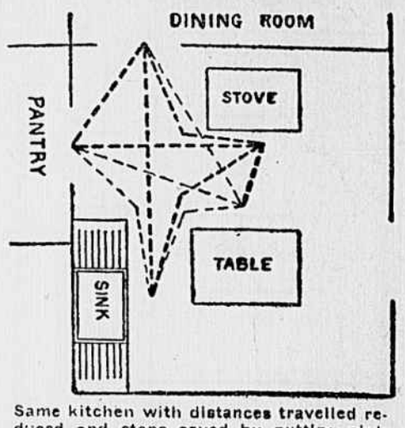
Whether the chief exposure of the kitchen shall be north, east, south or west is a matter governed by individual preference and local conditions. A kitchen which receives the morning light is usually desirable. Effort should be made to secure light from two directions and cross ventilation. For this purpose the kitchen should be located either in a corner of the house or in a narrow part, where there can be windows on opposite sides. It is well, also, to locate the kitchen so that clouds of dust may not be blown in from the road, and it is of even greater importance that the kitchen be so located with reference to barns and other outbuildings that the prevailing winds will not bring unpleasant odors or swarms of flies.

In many farmhouses a very large kitchen is provided because it must handle the unusual cooking for harvest hands. It is much better to provide a temporary shed or a kitchen on the porch, with oil stoves or other cooking devices to handle this unusual rush, and thus allow the housekeeper to have a smaller kitchen during the rest of the year.

The size of the kitchen, unless a large pantry or a storeroom is provided, is governed somewhat by the amount of supplies which must be stored. In the case of a farm distant from town, supplies necessarily must be bought in bulk and need sufficient storage space. In such cases it is sometimes wise to provide an extra pantry or storage room. In arranging the pantry, especially if it be between the kitchen and dining room, care should be used not to make it too large, as a long passageway between these two rooms adds greatly to the labor of the woman.



A fairly small kitchen, in which the distances travelled in preparing, serving and clearing up after a meal are immeasurably long, due to location of sink and table.



Same kitchen with distances travelled reduced and steps saved by putting sink and table in locations more convenient to the pantry, stove and dining room.

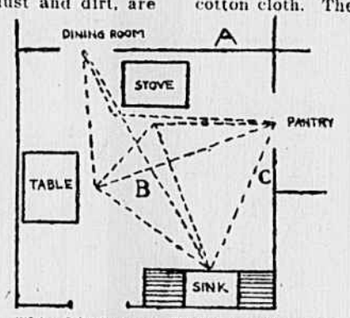
The kitchen should be so located that it will be especially convenient to the pantry, dining room, storeroom, cellar and woodshed. At the same time, access to other parts of the house should be easy from the kitchen, although it is unfortunate if the kitchen is made the principal entry way to the house. The kitchen should always be on the same level with the pantry and dining room, as even one or two steps mean the extra work of lifting and lowering the body up and down them many times a day, and inevitably lead to greater breakage of crockery. General traffic in the kitchen should be reduced as much as possible, and it should not be made a place where clothing and hats are hung.

For reasons of general convenience, too, the refrigerator should be on the same level as the kitchen. Similarly, for much the same reason, the writer urges that the refrigerator or icebox be so arranged that it can be filled from outside. If the rear opening of the icebox is tightly joined to the opening in the wall of the house, and this opening is screened with strong wire netting, the back of the icebox can be left open in Winter and the food kept in cold air without chilling the rest of the house.

The floors, walls and ceilings should have a plain surface and be free from cracks, ridges, mouldings or other raised ornaments which catch dust and dirt, are difficult to keep clean, and afford harboring places for insects. Walls covered with washable paint or washable wall paper are easier to clean than those simply tinted, though the latter can be readily renewed. Light colors are preferable, greenish grays being desirable if the exposure is toward the south, and light yellows or creams if the kitchen gets its light principally from the northeast.

Of course, tiling or vitrified brick or metallic tiling are better than paint, tint or wall paper, which have to be renewed, but these are more expensive. Where the walls are painted, a better surface results when a coat is applied every year or two than when several coats are applied at once. A final coat of enamel paint or outside varnish is desirable for woodwork that needs cleansing frequently. The ceiling may be finished with whitewash or one of the commercial preparations.

Unfinished wooden floors are one of the great burdens of the housewife, as they can be kept clean only by frequent scrubbing, and in spite of care show spots and stains. Soft wood quickly becomes rough and splintered. Soft woods can be bettered by the application of special floor paints. Hard woods can be made less absorbent by the application of wood fillers which are common commercial preparations. Where unseasoned boards are used, cracks are likely to occur from shrinkage, and these should be filled, putty being sometimes used—and sometimes commercial preparations designed for this purpose.



This kitchen could be made more convenient by cutting another door into the dining room at A and by moving table and sink to the places marked B and C respectively.

Lighting, ventilation and heating are particularly important in the kitchen. For ventilating purposes, a window that goes to the top of the room, with a top sash that can be readily raised and lowered, is especially good, as it lets out the hot air which naturally rises. A window pole can be provided for closing the top sash. In lieu of a window opening at the top, small windows for ventilating purposes may be provided near the top, over the cupboard, table or sink. These will be most convenient if they are hinged and arranged so that they can be opened and closed by pulley and rope. There can hardly be too many windows in a kitchen. Glass panels in doors also allow light to penetrate into dark places in closets or passageways. Where there is danger of breakage, wire glass should be used, and where privacy is desirable frosted or similar glass can be selected.

In the Northern States during cold weather the windows in the kitchen should be provided with a board which fits below the lower sash of the window, with the lower sash shut upon it. This arrangement will admit air between the two sashes without drafts. Very good ventilation without great loss of heat may be obtained by the use of window screens covered with cotton cloth. These allow the outside air to enter without a draft, and also keep out dust and dirt.

These cloth coverings will be very serviceable over pantry and storeroom windows which are kept open during the Winter. In such cases the cloth can be fastened on the outside of the window with thumb tacks. Shades should be provided for sunny windows, and at least one window in the kitchen should be equipped with an adjustable shade, which can be pulled over either the upper or lower sash or both.

In cold districts, loose windows and cracks should be provided with window strips or stuffed, and special care should be given to chinking up the cracks between the frame of the house and the foundations, so as to keep out the cold. Double or storm windows and storm porches are advantages in very cold climates.

For Summer in Northern States, and for all the year use in warmer regions of the country, there should be a screened porch opening off from the kitchen on the side which is not exposed to the sun during the hottest part of the day. Much of the kitchen work may be done here, and this will add greatly to the comfort of the worker. Some prefer to have such a porch open on to the garden, but others find that a screened porch with no opening is preferable, just because it gives better protection against flies. All windows should be screened to keep out flies and other insects which are diseased carriers and a cause of discomfort.

Every SUNDAY SCHOOL NEEDS A DOCTOR

A NUMBER of recent epidemics of scarlet fever among children attending the same Sunday school leads many physicians to believe that such schools ought to be subject to rigid medical supervision. It is suggested that the physicians of a church congregation might find a useful field for a little practical religion by taking turns at attending the Sunday school and giving the pupils professional supervision and advice. A church clinic for children not old enough to attend the day schools is also recommended.

As everybody knows, the amount of scarlet fever and contagious diseases has been greatly reduced by careful precautions against infection in the public schools. Why, then, should not the same precautions be used in Sunday schools, dancing classes, moving picture theatres and other places where all sorts of children are brought into close contact with one another?

As a writer in American Medicine points out, there is still considerable difference of opinion as to when scarlet fever is most easily transmitted, but the weight of evidence so far seems to point to the early days even before the eruption is out. Many competent men are denying that the peeling skin is the carrier, but it would be folly to act on such an opinion until they present irrefutable proof, and that cannot be done until we find the germ and learn its habits. The only safe course at present is to consider a case dangerous from the beginning of symptoms to the end of the peeling. The day school teachers have, therefore, been taught to be on the lookout for illness in a pupil and to send it home if there is even a suspicion of fever and refuse readmission until the health officer permits. So successful has science been in convincing school authorities that infection is generally transmitted directly from the sick to the well in more or less close contact that there has been a notable reduction of the amount of disease contracted in schools.

There is justifiable amazement, therefore, that health authorities have not yet compelled Sunday schools to exercise similar care, particularly since the children are in far closer contact than in day schools.

It seems only common sense that the law as to certificates of health and vaccination should be applied to Sunday schools as well as day schools, but this can scarcely be expected for awhile. What should be insisted upon is some check to the absolute freedom which is now enjoyed by ignorant mothers to send to Sunday school those children who are in the beginning of illness or who are still dangerous though convalescent. Clergymen ought to take up this matter with the superintendents of their Sunday schools and the doctors in their congregations.

Are OLD MEN the BEST GENERALS?

ONE of the most surprising facts about the present war is the important part that is being played in it by old men. Nearly all the great commanders are over fifty years old, many are over sixty, and there are a number who are close to seventy or over.

All this is quite contrary to the ideas of our own General Grant and other military authorities. Grant repeatedly stated that no general should be over fifty, as he found that beyond this age the mind was not quick enough to adapt itself to the new conditions which daily arise. His experience had taught him that elderly generals were alwa[ys] to adapt old ways of doing [to] the new conditions, instead [of] ing new methods as young[er] would do.

Up to the present time the w[ar] greatest generals have usually [been] young men. Caesar was in his early twenties when he showed his abilities. Alexander and Richard II. were only thirty-two when they died. The careers of both Napoleon and Grant were delayed for years because of their youth. Of the great modern generals Von Moltke was the first to hold on until he became too old for active service.

The reason why old men are so prominent in the armies of Germany and the allies seems to be in the modern system of concentrating the general's duties in a general staff [com]posed of comparatively young [men] who do all the planning, which [is] rarely done by the general in [com]mand alone.

[Mod]ern armies, unlike those of [a] generation ago, are altogether [too] large to be directed by one mind. [To] suit the military machine has [be]come a great impersonal monster who[se] brains are in the skulls of hundreds of nameless young strategists who learn the facts, then think, plan and issue orders to the elderly commanders, who in turn have a staff of young men to attend to the details.

Successful generals are now men who have the genius to get the right kind of men to do the work for them. Old men who have learned their own limitations can generally do this far better than the young, who are overconfident of their own abilities.

A NEW CURE for FELONS

THE painful and troublesome affection, commonly known as a felon, is an inflammation which attacks the tendons of the fingers and their sheaths. A new treatment which is proving very successful in relieving the trouble is the use of equal parts of glycerine and a saturated solution of magnesium sulphate.

Aseptic gauze should be saturated with this mixture, then covered with thin rubber tissue and a little absorbent cotton, and held in place on the finger with a narrow gauze bandage. During the day this application may be removed advantageously for a while, and the finger soaked in hot water and borax (half an ounce of borax to one pint of hot water) at least during fifteen to twenty minutes, two or three times in twenty-four hours. The borated solution is very useful in reducing local pain and redness, and probably limits the spread of the disease.

When the felon is well on toward recovery, after several weeks of wet dressing and soaking, oxide of zinc ointment applied at bedtime, or during the day also, is notably beneficial in curing the slight amount that may still remain of pain, redness, and swelling.

First BAKE YOUR CIGARS and Then GIVE THEM A BATH

THE English bake their cigars thoroughly in the oven, until all of the moisture and nicotine are dried out. As is well known, they have the pick of the tobacco crop over there, and what they apply to the best of cigars might well be administered to those of inferior quality which are smoked in America.

Here is what every smoker should do: First, loosen the cigars in the box, and let them stand on or near a stove or radiator until absolutely dry.

A moment before smoking, wash the cigar in water on the outside and dampen well the wrapper. This may be done at the table by holding the cigar by the tip in a glass of drinking water taking care not to wet the filler. Then wipe the tip end, before cutting it off, on the napkin. Water revives the leaf and restores its natural flavor.

What you have previously dried out in the oven is not water moisture. It is the bay rum or other spirits which are frequently sprinkled over the cigars after boxing to keep them looking fresh. Both the wholesaler and the retailer often sprinkle them again before showing them to customers. It is these spirits that impart such a strong odor to clothes in which cigars are carried. Drying and washing afterward will make for a better smoke, to say nothing of better health, in cases where very cheap spirits have been used on the cigars.

Science, however, warns you to bake and wash cigars for still other reasons. The gum tragacanth, or paste, which is used to fasten the leaf at the tip, breeds several more or less poisonous fungi. Such molds are sometimes noticeable in the form of white powder along the outside of the leaf but are more likely to run along under the leaf on the inside. In the former case, it comes in contact with your mucous membrane. If on the inside, you are likely to suck it into the mouth without knowing it. These molds are liable to produce sores or more serious troubles on the lips and tongue.

By baking and washing your cigars you not only get rid of the mold and some of the nicotine but you improve the flavor of the cigar. Some men, after drying cigars, place them in a refrigerator, where they absorb water, and smoke them when they get as cold as ice.

The Government is now considering the advisability of compelling the proper sterilization of all paste used in cigars and requiring that boric acid be mixed with it to kill the spores of the molds. It means to stop the use of vinegar, alcoholic solutions, glycerine and other things used to restore the lustre of cigar leaf and to prevent importation of cigars which have been subjected to such practises.

Cigar lustre is lost in the process of boxing cigars. The manufacturer puts tobacco leaf in soak the day before making it into cigars, then spreads the leaf on a table with damp cloths over it. The cigars are boxed wet, so that heavy pressure must be exerted to press down the covers. Because he has not sterilized his paste and killed spores of the molds in it, the mold breeds in the damp cigars while in transit, and the lustre disappears. The Government hopes to teach smokers to do without the lustre and get better cigars.

SCIENCE NOW KNOWS---

What It Takes to Kill a Man.

ONE mathematician has calculated that during the first five months of fighting in Europe it required the firing of 168 pounds of metal for every soldier killed. This is less than was required during the Civil War.

Silk From Horses and Cows.

FROM a German discovery it has been found that by treatment with acids and other substances the fibres of muscle tissue from horses and cattle may be converted into short threads having the appearance of raw silk. These fibres may be made into fabrics which can be vulcanized like silk and used for pneumatic tires, manila envelopes and other purposes.

No Connection Between Beer and Murder.

IT is difficult to find any connection whatever between the consumption of large quantities of beer and the rapidly increasing murder rate in the United States. Milwaukee, which is noted for its fondness for beer, had during the decade ending with 1912 the smallest number of murders of any city in the country. On the other hand, St. Louis, which is also extremely fond of beer, had during the same period the eighth highest number of murders.

TOYS That Actually GROW

THE newest fad in playthings is toys that actually grow. They come from Japan, and, when put together to suit the taste of the purchaser, assume with wonderful realism the aspect of farm scenes.

The arrangement of them is always made in some kind of a dish, with a small quantity of water covering the bottom. This serves to represent a lake, on which tiny boats with fishermen and other passengers navigate attractively. Fishes are also provided to swim in the water—that is to say, toy fishes, of course. There is even a water buffalo, to wade.

The prime necessity of the water, however, lies not in its picturesqueness, but in its requirement for the support of plant life of different kinds. For the "land" in the toy landscape is composed of living moss, the surface vegetation of which serves excellently to represent tall grass—in size relative to the little people of papier mache who walk about in it.

There are also pieces of horseradish which, in the shallow water of the dish, represent small land masses—their sprouting vegetation giving a highly realistic effect. If desired, other kinds of sprouting roots may be employed for the purpose, lending variety to the landscape.

A small rustic bridge is provided, to connect a mainland of moss with an island of moss. Through the "grass" chickens promenade. There are two or three little houses, and even some trees.

Each little human figure is provided with a pin at the bottom, so as to be stuck into the moss or sprouting root. The tree-trunks terminate in wires, so that they may be planted wherever desired. In fact, much of the interest of these curious and novel playthings lies in the fact that one is at liberty to arrange them in any way that suits him, exercising his own taste and ingenuity of design.

How You Can SEE THE WIND

IT is said that any one may actually see the wind by means of a common hand-saw. The experiment is simple enough to be worth trying, at least. According to those who have made the experiment, all that is necessary is a hand-saw and a good breeze.

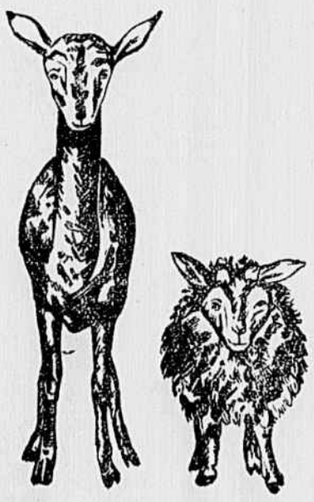
On any blowy day hold the saw against the wind. That is, if the wind is in the north hold the saw with one end pointing east and the other west. Hold the saw with the teeth uppermost and tip it slowly toward the horizon until it is at an angle of about 45 degrees.

By glancing along the edge of the teeth you can "see the wind"; it will be pouring over the edge of the saw much after the manner that water pours over a waterfall. This is doubtless due to the fact that there are always fine particles of dust in the air, and in a strong breeze the wind forces against the slanting sides of the saw, slides up the surface and suddenly "pours over" when it reaches the top.

It is doubtless the tiny particles that make the air dust-laden that can be seen falling over the edge of the saw as the wind current drops, but it is about as near as any one can get to seeing the wind under normal conditions.

THYROID GLANDS Keep Us From Looking IDIOTIC

On the Left, a Normal Goat at the Age of Four Months. On the Right, a Goat of the Same Age Whose Thyroid Gland Was Removed Three Months Before. The Loss Has Stunted Its Growth and Given Its Face a Blank, Unnatural Expression.



THAT the thyroid gland has a tremendous effect upon both our size and our looks has been proved by removing this gland from a goat at the age of twenty-one days. If this gland is taken away from an adult animal paralysis and death follow immediately, but in the very young animal the effect is shown in the stunting of the bones and the expression of the face.

The teeth of the animal operated upon developed slowly and in a way quite different from normal. Ossification of the bones was very slow, especially in the longer bones and the spinal column. The bones of the limbs became only one-third as long as they normally would have done.

But the most interesting effect of the removal of the thyroid gland was in the expression of the animal's face. When the gland was removed from this young goat its face became quite blank, almost like that of the idiot among human beings, and the animal acted very differently from the normal goat.

Science now believes that the mind is seriously affected by a lack of the necessary secretions from the thyroid gland. For this reason no surgeon ever dreams of removing the entire thyroid gland, even in the worst cases of goitre or disease of this gland. He takes away the parts worst affected, but always leaves some of the gland, so that at least part of its work may be done. Otherwise the person might become an idiot.

How CHILDREN Often GET WARPED

WHEN children habitually assume a bent, stooping position it does little good to keep urging them to "throw their shoulders back" and to "stand up straight." Such a position is usually the sign of muscular weakness, and regular courses of exercise are what is needed to remedy the trouble and prevent the child's body becoming permanently warped out of shape.

According to Dr. Mathilda K. Walling there are two classes of bad posture, the congenital, which it takes years of careful study to overcome, and the acquired, which is not so difficult to remedy.

Correct posture is that in which, standing or sitting, correct muscular balance is maintained. Unless you stand and sit in this way proper heart and lung action cannot be assured and all one's vital organs are seriously hampered. Every boy and girl should be taught how to stand and sit as soon as they are old enough to learn anything.

Schools are often to blame for bad posture in children. In many of them the seats and desks are ill-fitting. Forcing a child to remain for hours at a desk which is too high or too low, with no opportunity for exercise or change of position, can hardly fail to have a bad physical effect.

Clothing is also a frequent cause of poor standing or sitting positions. Often they place too much weight on the child's shoulders and drag him down. Poorly fitting shoes are another cause of incorrect posture.